

**PENETRATION- AND FIRE-RESISTANT FABRIC MATERIALS AND STRUCTURES**

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**CROSS REFERENCE TO RELATED APPLICATIONS**

This application claims the benefit of co-pending U.S. Provisional Application No. 60/087,771, filed June 2, 1998, <sup>and is a cont</sup> as well as U.S. Patent Application No. 09/325,596 entitled Penetration Resistant Fabric Structures and Materials filed June 2, 1999, both of which are incorporated herein by reference for all purposes.

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**U.S. GOVERNMENT RIGHTS**

This invention was made in part with government support under research grant number 95-G-010 awarded by the Department of Transportation, Federal Aviation Administration. The government has certain rights in the invention.

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**BACKGROUND OF THE INVENTION**

**Technical Field**

This invention relates generally to fragment penetration and fire shields, and, 20 more particularly, to penetration and burn-through resistant fabric structures and materials used to absorb energy, arrest projectiles, and act as a fire shield.

**Description of the Related Art**

Over the years several civil aircraft accidents having catastrophic 25 consequences have resulted from damage to critical aircraft components by flying